REMARKS

Upon entry of this amendment claims 3, 9, 10, 18, 26, 52, 55-57, 64-196, and 200-215 are pending. Claims 3, 9, 10, 18, 26, 52 and 55-57 are amended to more fully describe the invention; Claims 1-2, 4-8, 11-17, 19-25, 27-51, 53-54, 58-63, 197-199 are canceled, without prejudice or disclaimer; Claims 200-215 are added by this amendment and Claims 64-196 are withdrawn.

Amendments to the Claims

Support for the amendments can be found throughout the specification, particularly Claim 3 as amended contains recitations from earlier claims 58 and 197, which are cancelled. Claim 52 as amended contains recitations from earlier claims 59 and 197, which are cancelled.

No new matter has been added.

New Claims

Support for the new claims can be found throughout the specification, particularly new claims 200-215 find support in the specification as follows. Support for the recitation in Claims 200, 201, 208 and 209 of "manganese(II)dichloro-[(4R, 9R, 14R, 19R)-3, 10, 13, 20, 26-pentaazatetracyclo[20.3.1.0(4,9)0(14,19)]hexacosa-1(26),-22(23),24-triene]" can be found at least in Example 2 which describes template synthesis of compound 38. This example begins on page 74, lines 19-21 which recites the chemical name for compound 38 as now recited in new Claims 200, 201, 208 and 209. The example provides further support in the subsequent text and in the diagram illustrating the synthetic process shown at the bottom of page 75.

Support for the recitation in Claims 200, 202, 208 and 210 of "manganese(II)dichloro-[(4R, 9R, 14R, 19R)-3, 10, 13, 20, 26-pentaazatetracyclo[20.3.1.0(4,9)0(14,19)]-24-chloro-hexacosa-1(26),-22(23),24-triene]" can be found in Example 4 which describes the template synthesis of compound 42. This example begins on page 80, line 13, describing the template synthesis, in particular, on page 82, line 13 through page 84, including the diagram illustrating the synthetic process at the top of page 84. From the text of the examples, it is clear that the only difference between the template synthesis of compound 38 in example 2 and the template synthesis of compound 42 in example 4 is the use of 4-Chloro-2,6-pyridinedicarboxaldehyde in example 4 (page 82, lines 22-23) instead of 2,6-pridinedicarbosaldehyde in example 2 (page 74, line 29) to produce the 24-chloro derivative which is compound 42. Hence, the compound name for compound 42 recited in Claims 200, 202, 208 and 210 is identical to that recited for compound 38 except for the additional reference to the 24-chloro- substituent. This is also illustrated in the synthetic process diagrams at the bottom of page 75 for compound 38 and at the top of page 84 for compound 42.

Support for the recitation of "manganese(II)dichloro-[(4R, 9R, 14R, 19R)-3, 10, 13, 20, 26-pentaazatetracyclo[20.3.1.0(4,9)0(14,19)]-24-thioethylamine-hexacosa-1(26),-22(23),24-triene]" in Claims 200, 203, 208 and 211 can be found in Example 5 which describes the synthesis of compound 43 from compound 42 beginning on page 84, line 1 through page 85 including the diagram illustrating of the synthetic process at the top of page 85. As is apparent from the text and the diagram, the only difference between compound 42 and compound 43 is the substitution of a thioethylamine- group for the chloro- group at position C-24. Hence, the compound name as recited for compound 43 in Claims 200, 203, 208 and 211 is identical to that recited for compounds 38 and 42 except for the reference to the 24-thioethylamine- substituent. This is also illustrated in the synthetic process diagram at the top of page 85.

Support for the structures in new Claims 204-207 and 212-215 can be found at least in Examples 2, 4 and 5 and, in particular, in the diagrams at the top of page 85, at the top of page 84 and at the bottom of page 75.

No new matter has been added.

Rejection under 35 U.S.C. § 103(a)

Claims 2-63 and 197 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,774,278 to Ragheb et al. ('278), in view of U.S. Patent No. 5,696,109 to Malfroy-Camine et al. ('109) and U.S. Patent No. 5,837,752 to Shastri et al. ('752) and further in view of either Puoyani et al. or Sakurai et al. Applicants note that upon entry of this paper, Claim 2 is cancelled and Claims 3 and 52 are rewritten in independent form. Applicants, therefore, respectfully traverse this rejection with respect to the currently pending Claims 3 and 52 and claims that depend therefrom and request reconsideration and withdrawal of this rejection because none of the references disclose or suggest the subject matter as recited in the currently pending claims. In particular, none of the cited references disclose or suggest pentaazacyclopentadecane compounds nor do any of the cited references disclose or suggest pentaazacyclopentadecane compounds covalently bound to the surface of a biomaterial or a copolymer of a pentaazacyclopentadecane compound and a biomaterial monomer.

The '278 patent discloses a medical device for the controlled release of an agent, drug or bioactive material and a list of categories of bioactive materials is provided including free radical scavengers (Col. 3, lns. 14-15; Col. 3, ln. 60 through Col. 4, ln. 10). As recognized by the U.S.P.T.O., however, this reference "is silent to the particular species of the genus of free radical scavengers and antioxidants." Indeed this reference provides no teaching or suggestion whatsoever of pentaazacyclopentadecane compounds. Further, this reference provides no teaching or suggestion of a pentaazacyclopentadecane compound covalently bound to the surface of a biomaterial as recited in Claim 3 as amended or of a copolymer of a

pentaazacyclopentadecane compound and a biomaterial monomer as recited in Claim 52 as amended.

The '109 patent discloses salen-transition metal complexes (see for example Col. 6, lines 43-47). However, this reference provides no teaching or suggestion of a pentaazacyclopentadecane compound or a pentaazacyclopentadecane compound covalently bound to the surface of a biomaterial as recited in Claim 3 as amended or of a copolymer of a pentaazacyclopentadecane compound and a biomaterial monomer as recited in Claim 52 as amended.

The '752 patent discloses compositions useful as bone cements and tissue implants (Col. 3, lns 14-17 and 21-24). However, this reference provides no teaching or suggestion of a pentaazacyclopentadecane compound or a pentaazacyclopentadecane compound covalently bound to the surface of a biomaterial as recited in Claim 3 as amended or of a copolymer of a pentaazacyclopentadecane compound and a biomaterial monomer as recited in Claim 52 as amended.

Sakurai et al. discloses the conjugation of proteinaceous superoxide dismutase (SOD) from bovine erythrocytes with sodium hyaluronate by coupling amino groups of SOD with carboxyl groups in the hyaluronate (See Abstract). This reference, however, teaches the conjugation of the proteinaceous SOD with hyaluronate in order to improve biocompatibility and ovecome the limitation of using proteinaceous SOD clinically resulting from rapid clearance from the circulation and induced immune reaction when injected *in vivo* (see page 723, Col. 1, lines 9-12 and Col. 2, line 18). But the pentaazacyclopentadecane compounds recited in Claims 3 and 52 are not proteins at all and one skilled in the art would not expect the same biocompatibility problems associated with a protein to be associated with the pentaazacyclopentadecane compounds. Further, there is no disclosure or suggestion whatsoever of the non-proteinaceous pentaazacyclopentadecane compounds of the present invention in the Sakurai et al. reference. Moreover, the protein-hyaluronate conjugate disclosed in Sakurai et al. was in the form of a white powder that dissolved to form a solution (see page 723, Col. 1, lines 29-30; Col. 2, lines 13-16) and there is no disclosure or suggestion a pentaazacyclopentadecane compound covalently bound to the surface of a biomaterial as recited in Claim 3 or of a copolymer of a pentaazacyclopentadecane compound and a biomaterial monomer as recited in Claim 52.

Contrary to what was stated by the U.S.P.T.O. the Pouyani et al. does not disclose the conjugating of superoxide dismutase to hyaluronic acid at all, but instead, this reference discloses the covalent attachment of hyaluronic acid to ibuprofin and to hydrocortisone (see page 344, line 8 through page 345, line 8). This reference, however, fails to disclose or suggest

the pentaazacyclopentadecane compounds of the present invention or a pentaazacyclopentadecane compound covalently bound to the surface of a biomaterial as recited in Claim 3 as amended or of a copolymer of a pentaazacyclopentadecane compound and a biomaterial monomer as recited in Claim 52 as amended.

Thus, none of the references cited by the U.S.P.T.O. disclose the subject matter recited in the claims as amended and withdrawal of the rejection with respect to the currently pending claims is respectfully requested.

CONCLUSION

For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of rejections of the claims. It is believed that the claims as currently presented are in a condition for allowance and such favorable action is respectfully requested. If any questions arise or if any issues remain to be resolved, it is requested that the Examiner contact the undersigned attorney.

Respectfully submitted,

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